

A high-speed photograph of water splashing, creating numerous bubbles and droplets against a blue background. The water is captured in mid-air, with some droplets appearing as bright, reflective spheres.

Keeping Raw Sewage & Contaminated Storm Water Out of the Public's Water

2013





Introduction

More than forty years ago, the federal Clean Water Act set the ultimate goal of achieving water quality improvements that would allow people to fish from and swim in our rivers, lakes and streams. The quality of our water is directly related to the quality of our life. It is a vital resource for human health, but water quality is often taken for granted. More than forty years after the passage of the Clean Water Act, we must continue the work of implementing and enforcing the Clean Water Act while raising awareness about the activities that pollute our waterways.

Among the greatest challenges to the goals of fishable and swimmable waters are discharges and overflows of raw sewage into our waters. Many of the sewer systems in New York State and New Jersey and some in Puerto Rico are combined systems that carry sewage from homes and businesses as well as rainwater collected from street drains. When they overflow during heavy rains, the rainwater mixes with sewage and results in raw sewage being directly discharged into water bodies. This can pose serious environmental and public health risks. EPA has developed this report to answer some of the most commonly asked questions about combined sewer overflows and to raise awareness about this important water quality issue.



A circular, rusty metal sewer cover is shown, set into a concrete surface. The cover features a grid of raised rectangular blocks. The text "NYC SEWER" is embossed in the center. There are several small circular holes in the grid pattern.

NYC SEWER

"During periods of heavy rainfall or snowmelt...the volume of wastewater traveling through a combined sewer system can exceed the capacity of the sewer system or treatment plant."



Sewer Systems in Our Communities

Many communities have separate sewer systems for wastewater collection — an independent sewer system that carries sewage from buildings and another for rainwater, also referred to as stormwater. The stormwater is sent directly to lakes, rivers and streams, while domestic sewage is transported to wastewater treatment plants, where it is treated to remove pathogens and other contaminants.

Combined sewer systems, on the other hand, are designed to transport sewage, industrial wastewater and rainwater runoff in the same pipes to wastewater treatment plants. They are remnants of the country's early infrastructure and are typically found in older cities. Combined sewer systems serve about 40 million people in roughly 772 communities nationwide. Most communities with combined sewer systems are located in the Eastern U.S. and Great Lakes regions, and the Pacific Northwest.

What are Combined Sewer Overflows?

Most of the time, combined sewer systems are able to transport all of the wastewater to a treatment plant, where it is treated and then discharged into a water body. During periods of heavy rainfall or snowmelt, however, the volume of wastewater traveling through a combined sewer system can exceed the capacity of the sewer system or treatment plant. For this reason, combined

sewer systems are designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, lakes or other water bodies.

These overflows, called **combined sewer overflows** (CSOs), contain not only stormwater but also pollutants such as untreated human and industrial waste, toxic materials and debris. Stormwater may also contain pollutants, including oil, grease and toxic substances, picked up as rain washes across roads or fields. These pathogens, solids and toxic pollutants may be discharged directly to local waters when it rains, resulting in a discharge that exceeds water quality standards. They pose risks to human health, threaten aquatic habitats and life, and impair the use and enjoyment of the nation's waterways.

Impacts of CSOs

Exposure to polluted water from CSOs can cause waterborne infections including hepatitis, gastroenteritis, as well as skin, wound, respiratory, eye and ear infections. Although, generally, waterborne diseases result from ingesting contaminated water, they may also be contracted through inhalation of water vapors, eating contaminated fish and shellfish, and swimming. The most common symptoms are diarrhea and nausea.

The impacts are not limited to adverse human health effects; CSOs can cause beach closures, affect fish survival, and result in shellfish bed closures, contamination of drinking water supplies,



To view an actual CSO as it affects the Gowanus Canal in Brooklyn, visit: <http://nyti.ms/17ngOnW>



and the destruction of aquatic life. They can also limit recreational use of important and beautiful natural resources. Data for New York State in 2008 indicate that of the 138 beaches that had beach closures or advisories about water quality, approximately 5 percent were determined to be directly due to CSOs. CSO discharges can:

- Increase the presence of floating debris or slicks in the receiving waterways. Floating debris can also result in beach closures and seriously impair the aesthetic quality of receiving waters;
- Add significant amounts of toxic materials to the sediment that lies at

the bottom of our rivers, lakes and streams. In recent years, contaminated sediment has emerged as a major ecological and human health issue throughout the U.S. The contaminated sediment has both acute and chronic toxic effects on aquatic life and is a continuing source of persistent bioaccumulative toxic chemicals, chemicals that can concentrate in the fatty tissues of fish and other organisms over time;

- Result in financial burdens for communities due to cleanup expenses, emergency repairs, lost tourism revenue, lost productivity, and medical

treatment. The pollutants of concern and the principal consequences of CSOs are summarized in the Table 1.

Prevalence and Location of CSOs in New York, New Jersey and Puerto Rico

Owners or operators of combined sewer systems must obtain permits if the system overflows. In New York and New Jersey, the permit program is administered by state environmental agencies and is an essential tool for the control of CSOs. In Puerto Rico, permits are issued by EPA.



Table 1: Pollutants of Concern

Pollutants of Concern (US EPA 2001)	Principal Consequences
<ul style="list-style-type: none">• Bacteria (e.g. fecal coliform, E. coli, enterococci)• Viruses• Protozoa (e.g. <i>Giardia</i>, <i>Cryptosporidium</i>)	<ul style="list-style-type: none">• Beach closures• Adverse public health effects• Shellfish bed closures• Contamination of drinking water sources
<ul style="list-style-type: none">• Trash and floating debris	<ul style="list-style-type: none">• Aesthetic impairment and devaluation of property• Beach closures• Adverse public health effects
<ul style="list-style-type: none">• Organic compounds• Metals• Oil and grease• Toxic pollutants	<ul style="list-style-type: none">• Aquatic habitat impairment• Adverse public health effects• Fishing and shellfishing restrictions
<ul style="list-style-type: none">• Biochemical oxygen demands (BOD)	<ul style="list-style-type: none">• Reduced oxygen levels and fish kills• Odors
<ul style="list-style-type: none">• Solids deposits (sediment)	<ul style="list-style-type: none">• Aquatic habitat impairment• Shellfish bed closures• Odors
<ul style="list-style-type: none">• Nutrients (e.g. nitrogen, phosphorus)	<ul style="list-style-type: none">• Aesthetic impairment• Depletion of oxygen• Algal blooms

CSO Locations in the NYC Metro Area



US EPA Region 2
Map Created 9/15/2013

CSO Locations in New York and New Jersey



US EPA Region 2
Map Created 9/15/2013

Total number of CSO facilities and discharge points from which untreated wastewater is discharged into receiving waters:

- New York State has 76 CSO permit holders with 937 outfalls;
- New Jersey has 25 CSO permit holders with 217 outfalls;
- In Puerto Rico, EPA has recently identified four potential outfalls.
- For a list of all CSO facilities in New York, New Jersey and Puerto Rico see attachment 1.

CSO Locations in Puerto Rico



US EPA Region 2
Map Created 2/14/2011



What is EPA Doing about CSOs?

CSO Control Policy

Under the federal Clean Water Act, combined sewer discharges are prohibited without a permit. In December 2000, Congress amended the Clean Water Act by adding a section that requires each permit or enforcement document issued for a discharge from a municipal combined sewer system to “conform” to the CSO Control Policy. The CSO Control Policy is a comprehensive national strategy to ensure that local governments, permitting agencies, entities that establish water quality standards and the public engage in a comprehensive and coordinated planning effort to achieve CSO controls

that ultimately meet appropriate health and environmental objectives.

The strategy has three objectives:

- Ensure that if CSOs occur, they are only as a result of wet weather;
- Bring all wet weather CSO discharge points into compliance with the technology and water quality based requirements of the Clean Water Act;
- Minimize the impact of CSOs on water quality.

CSO permits require permit holders to immediately undertake a process to characterize their combined sewer systems and CSO discharges accurately and to demonstrate that they have implemented the nine minimum technolo-

gy-based controls (see Table 2) identified in the policy.

CSO permits also require permit holders to develop a Long-Term Control Plan (LTCP) that evaluates alternatives for attaining compliance with the Clean Water Act, including compliance with water quality standards and the protection of the uses designated for each body of water, such as drinking, fishing and swimming. In developing its LTCP, the permit holder must actively involve the affected public in the selection of the controls. CSO long-term controls are usually capital-intensive projects that take several years to implement. Table 3 identifies the 10 most frequently implemented LTCP controls as identified in the 2002 EPA Report to Congress on Implementation and Enforcement of the

Table 2: Examples of Actions that Meet the Nine Minimum Controls

Nine Minimum Technology-Based Controls	Control Measure Examples
Proper operation and regular maintenance programs of the sewer system and CSOs	<ul style="list-style-type: none"> • Maintain/repair flow regulator devices • Maintain/repair tidegates • Remove sediment/debris • Repair pump stations • Develop inspection program • Inspect collection system
Maximum use of the collection system for storage	<ul style="list-style-type: none"> • Maintain/repair tidegates • Adjust flow regulator devices • Remove small system bottlenecks • Prevent surface runoff • Remove flow obstructions • Upgrade/adjust pumping operations
Review and modification of pretreatment requirements to assure CSO impacts are minimized	<ul style="list-style-type: none"> • Volume Control • Diversion storage • Flow restrictions • Reduced runoff • Curbs/dikes • Pollutant Control • Process modifications • Storm water treatment • Improved Housekeeping • Best Management Practices Plan
Maximization of flow to the publicly owned treatment works for treatment	<ul style="list-style-type: none"> • Analyze flows • Analyze unit processes • Analyze headloss • Evaluate design capacity • Modify internal piping • Use abandoned facilities • Analyze sewer system
Elimination of CSOs during dry weather	<ul style="list-style-type: none"> • Perform routine inspections • Remove illicit connections • Adjust/repair flow regulator devices • Repair tidegates • Clean/repair combined sewer system • Eliminate bottlenecks
Control of solid and floatable materials in CSOs	<ul style="list-style-type: none"> • Screening — Baffles, trash racks, screens (static and mechanical), netting, catch basin modifications • Skimming — booms, skimmer boats, flow balancing • Source controls — street cleaning, anti-litter, public education, solid waste collection, recycling
Pollution prevention	<ul style="list-style-type: none"> • Source controls (see above) • Water conservation
Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts	<ul style="list-style-type: none"> • Posting (at outfalls, use areas, public places) • TV/newspaper notification • Direct mail notification • Posting information to web and email notices
Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.	<ul style="list-style-type: none"> • Identify all CSO outfalls • Record total number of CSO events and frequency and duration of CSOs for a representative number of events • Summarize locations and designated uses of receiving waters • Summarize water quality data for receiving waters • Summarize CSO impacts/incidents

CSO Control Policy. Several newer technologies that can help reduce CSOs are identified in the document *Emerging Technologies for Wastewater Treatment and In-Plant Wet Weather Management* (<http://water.epa.gov/scitech/wastetech/upload/Emerging-Technologies-Report-2.pdf>). To obtain a copy of the LTCP, contact the permit holder in your area.

Once the LTCPs are completed, permit holders are responsible for imple-

menting the plans in accordance with approved schedules contained in their permits or orders.

The complete CSO Control Policy can be found at <http://www.epa.gov/np-des/pubs/owm0111.pdf>.

Implementation of CSO Control Policy in New York and New Jersey

The states of New York and New Jersey have been authorized by EPA to imple-

ment major portions of the Clean Water Act, including the permit program known as the National Pollutant Discharge Elimination System. EPA works closely with the state water permitting authorities — the New York State Department of Environmental Conservation and the New Jersey Department of Environmental Protection — to minimize or eliminate CSO discharges and implement the CSO Control Policy by ensuring permits contain requirements for implementing



Table 3: 10 Most Frequently Implemented LTCP Controls

LTCP Control	Control Category	Number of Systems Implementating the Control	% of 439 Permits Reviewed
Sewer separation	Collection System	222	51%
Sewer rehabilitation	Collection System	73	17%
Retention basins	Storage	71	16%
Disinfection	Treatment	71	16%
Primary sedimentation	Storage	69	16%
Storage tunnels and conduits	Storage	66	15%
Upgraded WWTP capacity	Treatment	64	15%
Outfall elimination	Collection System	63	14%
Upgraded pump station capacity	Collection System	53	12%
Swirl concentrators/vortex separators	Treatment	31	7%

the nine minimum controls as well as developing and implementing LTCPs.

National Enforcement Strategy

Sources that discharge to waters of the United States must comply with the Clean Water Act's technology-based and water quality-based requirements. EPA will continue to focus its enforcement efforts on reducing discharges of raw sewage and contaminated stormwater into our nation's rivers, streams and lakes. The Clean Water Act requires municipalities to treat sewage before it is discharged and to control contaminated stormwater discharges, but many municipalities are not in full compliance with these requirements. The Clean Water Act also requires municipalities to meet water quality standards and protect the designated uses for a waterbody before sewage is discharged.

In recent years, EPA's enforcement efforts have resulted in agreements with

many cities including Northeast Ohio Regional Sewer District, Ohio; Kansas City, Missouri; and Oswego, New York to address their CSO problems. An EPA National Enforcement Initiative from October 2010 to the present focuses on the reduction of discharges from combined sewers, sanitary sewers, and municipal storm sewer systems, by obtaining commitments from municipalities to implement timely, comprehensive solutions to these problems, including increased use of green infrastructure as appropriate.

Promotion of Green Infrastructure

Green infrastructure is an approach to design that takes nature into account in order to mitigate the effects of existing and future growth on the environment. Green infrastructure includes techniques that can reduce, capture and treat stormwater runoff at its source before it reaches the sewer system and can be an important element of LTCPs.

Site-specific practices, such as green roofs, downspout disconnections, rain harvesting/gardens, planter boxes, and permeable pavement are designed to mimic natural hydrologic functions and decrease the amount of impervious area and stormwater runoff from individual sites. Green infrastructure can also be applied in neighborhood settings or on a larger regional scale (i.e., buffers along the banks of waterbodies and urban forestry) to manage stormwater. These applications and approaches can keep stormwater out of the sewer system to reduce overflows and to reduce the amount of untreated stormwater discharging to surface waters.

Funding

Low interest loans and grants are available to help supplement residential, commercial, and industrial sewer user fees to fund CSO projects. The Clean Water State Revolving Fund (CWSRF) program is administered by state agencies and funded by EPA. New York has, within its CWSRF program, a separate program to specifically fund Green Infrastructure projects.

Under the 2009 American Recovery and Reinvestment Act, EPA provided extra assistance to localities and states for CSO projects. In New Jersey, Recovery Act funding has gone to eight CSO projects with a total of more than \$30 million allocated. In New York, five CSO projects have been awarded a total of more than \$45 million in Recovery Act funding.

EPA Region 2 received \$570 million in funding for loans and grants for water and wastewater infrastructure impacted by Hurricane Sandy. The funding is to be used to make this infrastructure more resilient to floods and storms, and CSO projects are eligible for these funds. Additional funding for combined sewer systems damaged by Hurricane Sandy is available through FEMA's Public Assistance program.

Success Story

The city of Oswego, New York is an excellent example of how the Agency's enforcement strategy is resulting in system enhancements that will improve water quality. Improvements to the city's sewer system, to be implemented under a settlement lodged in federal court, will significantly reduce the number of sewer overflows.

Under the settlement, the city has agreed to undertake a comprehensive, system-wide program that will bring the city into compliance with the Clean Water Act. Specific measures include: separating 75 percent of the combined system into sanitary and stormwater components to prevent high volumes of rainwater from overwhelming the treatment plant; a 50 percent expansion of the capacity for wastewater treatment on the city's west side; disconnection of catch basins to reduce the inflow of rainwater into the existing sanitary sewer system; major improvements in daily operation and maintenance procedures; and sewer financing reforms.

It is estimated that the final CSO implementation program will eliminate approximately 30 CSO events per year resulting in a reduction of 10.7 million gallons of combined sewer overflows and 8.5 million gallons of sanitary sewer overflows from entering the Oswego River and Lake Ontario.

Beaches Environmental Assessment and Coastal Health (BEACH) Act

The BEACH Act of 2000 requires that coastal and Great Lakes states and territories report to EPA on water pollution levels at beaches and provide notification data on coastal waters used for recreation.

The BEACH Program focuses on the following five areas to meet the goals of improving public health and environmental protection for beach goers and providing the public with information

about the quality of their beach water:

- strengthening beach standards and testing;
- providing faster laboratory test methods;
- predicting pollution;
- investing in health and methods research;
- informing the public.

In 2012, EPA made almost \$10 million in grants available to 38 eligible coastal and Great Lakes states, territories and tribes to monitor beach water quality and notify the public of conditions that may be unsafe for swimming. This was the 12th year that EPA provided beach grant funds, bringing the total amount EPA has made available to nearly \$111 million.

Clean Beaches Plan

Through the Clean Beaches Plan, EPA is working with state, tribal and local beach managers to strengthen their programs. A strategy for reducing the risks of infection to people who use our recreational waters, the plan recognizes that beach managers need tools that allow for local and regional differences in pollution sources and climate. The Clean Beaches Plan describes how EPA will achieve two major goals: promotion of recreational water quality programs nationwide and creation of scientific improvements that support timely recreational water monitoring and reporting.

EPA also provides grants to states for beach monitoring and notification programs, technical guidance, scientific studies and federal water quality standards to support state and territorial efforts where necessary. EPA will award grants to states and territories to augment their monitoring of beaches and reporting to the public when the beaches are closed for health reasons.

Floating Debris Action Plan

The Floatables Action Plan, developed

in 1989 and most recently amended in 2013, addresses floating debris in the New York Bight, which includes the New York/New Jersey Harbor and the shorelines of Long Island and New Jersey. The plan was developed by an interagency workgroup that included city, state and federal representatives. The Floatables Action Plan has been carried out every year since to control washups of floating debris on area beaches. The plan consists of aerial surveillance by an EPA helicopter and plane, a communications network to report slick sightings and to coordinate cleanup response, and routine cleanups conducted by skimmer boats in the New York/New Jersey Harbor. Since its inception, the plan has significantly reduced the amount of floating debris escaping the harbor and has been expanded to include volunteer collection, booming and skimming, combined sewer overflow collection and beach cleanup programs. As of 2012, approximately 440 million pounds of debris had been removed from the New York Bight area.

Marine Debris

Marine debris is a problem along shorelines, and in coastal waters, estuaries and oceans throughout the world. Marine debris consists of trash and other solid material that enter our waterways either directly or indirectly. Common types of marine debris include plastic bags, bottles and cans, cigarette filters and bottle caps. When trash is not recycled or properly disposed of on land it can become marine debris, often by washing from the street into sewers or storm drains. Many types of animals like seals, sea turtles, birds, fish, and crabs, can be wounded, strangled, or unable to swim if they consume or become entangled in marine debris. EPA scientists have conducted numerous studies to identify types and sources of marine debris. EPA also focuses control efforts on specific sources such as street litter, stormwater runoff, and industrial wastewater and supports recycling programs.

Preventative Measures

Simple Steps to Help Prevent CSOs

What Individuals Can Do

Participate in your community's planning process

If you live in a community with a combined sewer system, then your municipality must implement a Long-Term Control Plan (LTCP). An important aspect of the plan is public participation. Take advantage of this process and help your community make decisions regarding CSOs. Call your local water department or visit your municipality's website to see how you can get involved.

Report overflows during dry weather

If you see a combined sewer overflow during dry weather, report it to your state environmental agency:

New Jersey Department of Environmental Protection (NJDEP)

<http://www.nj.gov/dep/warndep.htm>

401 E. State Street

P.O. Box 402

Trenton, NJ 08625-0402

Toll-free hotline for reporting environmental incidents:

(877) 927-6337

New York Department of Environmental Conservation (NYSDEC)

Contact your Regional Water Manager
at NYSDEC Regional Office

www.dec.ny.gov/24.html

or write:

NYSDEC

Division of Water

625 Broadway

Albany, NY 12233-3500

or call: 518-402-8111

Puerto Rico Environmental Quality Board (PREQB)

<http://www.gobierno.pr/JCA/Servicios/Agua/>

Director de Área: Roberto Ayala Padró

E-mail: robertoayala@jca.gobierno.pr

Tel: (787) 767-8073

(787) 767-8181 ext. 3475, 3476

The 3 Rs: Reduce, Reuse, Recycle

By generating less garbage, you help reduce the amount of garbage that can make its way into a combined sewer system.

Flush Responsibly

Don't pour household products such as cleansers, beauty products, old medicine, auto fluids, or paint and lawn care products down the drain. Properly dispose of them at your local household hazardous waste facility. To find out where one is in your community, visit <http://earth911.com>.

Conserve Water

By conserving water, you help reduce CSOs by reducing the flow of combined sewage, which helps reduce flows during rain storms. Plus you will save money on your water bill. There are many ways you can conserve water:

- Fix leaks throughout your house;
- Water your garden or lawn during the coolest part of the day and do not water on windy days;
- Use WaterSense labeled products, such as showerheads, toilets and sinks. WaterSense is an EPA-sponsored partnership program that promotes water-efficient products, programs and practices. These products work just as well, if not better than their counterparts, while using less water.

Reduce the Use of Pesticides

When it rains, pesticides can run off into the storm drains, where they enter the sewer systems. Use non-toxic products whenever possible and reduce the amount of pesticides and fertilizers used in homes and businesses to reduce the amount of these toxins entering sewers and waterways.

Green Infrastructure

Green Infrastructure is an approach to wet weather management that incorporates the collection and absorption of rain in order to prevent runoff. Examples of green infrastructure at home include:

- Rain Harvesting—create a rain barrel to collect rain water. Use collected water to water your garden;
- Rain Gardens—plant a rain garden to help capture rain water, preventing it from flowing into the street and down the storm drain;
- Don't pave everything.

What Businesses, and Industries Can Do

Pollution Prevention

Industrial and commercial sources that discharge directly into sanitary sewers located in areas with CSOs should make efforts to minimize discharges during wet weather and conserve water. Facilities with waste oil or hazardous waste storage should develop and implement pollution prevention plans to apply best management practices to minimize pollutant discharges into storm drains.

Erosion and Sediment Control

Loose soil is easily transported when it rains into storm drains. Implement erosion and sediment controls during construction activities, such as silt fences, storm drain protection and seeding of soil piles.

Pesticides Reduction

Using non-toxic products whenever possible will reduce the amount of pesticides and fertilizers entering sewers and waterways.

Don't Fill in Wetlands

Wetlands are critical areas of land that help protect and improve water quality, provide fish and wildlife habitats; absorb water, preventing flooding; and maintain surface water flow. When wetlands are filled in (even partially), nature's water balance is damaged.

Green Infrastructure

- **Green Roofs**—a flat roof can create a large amount of water runoff. Planting grass and plants on a roof can greatly reduce runoff.
- **Vegetated Areas**—even small parcels of land can be transformed into a green space. A little bit goes a long way!
- **Permeable Parking Lots**—segmented concrete or permeable materials can transform a parking lot from a flood zone to a water-saving area.

CSO outfall locations are usually marked with warning signs that can help you identify their presence. In general, CSOs look like a concentrated flow of wastewater from an open sewer pipe into a body of water. In many cases, a CSO can be identified by the smell of raw sewage.

Sources of Additional Information

U.S. Environmental Protection Agency:

http://cfpub.epa.gov/npdes/home.cfm?program_id=5

New York Department of Environmental Conservation:

<http://www.dec.ny.gov/chemical/48595.html>

New York City Department of Environmental Protection: Long-Term Control Plan

www.nyc.gov/html/dep/html/cso_long_term_control_plan/index.shtml

New Jersey Department of Environmental Protection:

<http://www.state.nj.us/dep/dwq/cso.htm>

Riverkeeper:

<http://www.riverkeeper.org/campaigns/stop-polluters/cso/>

New York-New Jersey Harbor Estuary Program:

<http://www.harborestuary.org/>

New York CSO Facilities			
Permittee Status	Facility/Permittee Name	Location	Permitted Outfalls
ACTIVE	Gouverneur STP	Gouverneur	1
ACTIVE	Amsterdam WWTP	Amsterdam	4
ACTIVE	Catskill WWTP	Catskill	6
ACTIVE	Boonville WWTP	Boonville	2
ELIMINATED	City of Salamanca	Salamanca	
RECLASSIFIED	Schenectady WPCP	Schenectady	2
ELIMINATED	Wellsville WWTP	Wellsville	
ACTIVE	Potsdam WPCP	Potsdam	1
ACTIVE	Medina WWTP	Medina	13
ACTIVE	Auburn STP	Auburn	16
ACTIVE	Hudson STP	Hudson	8
ELIMINATED	Erie County S.D. #6	Buffalo	
ACTIVE	Little Falls WWTP	Little Falls	3
ELIMINATED	Village of Holley STP	Holley	
ACTIVE	Target Hill WWTP	West Point	1
ACTIVE	Village of Johnson City CSO	Johnson City	2
ACTIVE	Binghamton CSO	Binghamton	9
ACTIVE	Binghamton-Johnson City Joint WWTF	Binghamton	0
ELIMINATED	Lewiston ORF	Lewiston	1
ELIMINATED	Carthage West WPCF	Carthage	
ACTIVE	Albany CSO	Albany	12
RECLASSIFIED	Oneida County WPCP	Utica	
ACTIVE	Watertown WPCP	Watertown	16
ACTIVE	Plattsburgh WPCP	Plattsburgh	11
ACTIVE	Rensselaer CSO	Rensselaer	8
ACTIVE	Port Richmond WPCF	Richmond	36
ACTIVE	NYCDEP Jamaica WPCP	Queens	6
ACTIVE	Wards Island WPCP	New York	74
ACTIVE	NYCDEP Bowery Bay WPCP	Queens	44
ACTIVE	NYCDEP Owls Head WPCP	Brooklyn	16
ACTIVE	NYCDEP Oakwood Beach WPCP	Richmond	1
ACTIVE	NYCDEP Coney Island WPCP	Brooklyn	4
ACTIVE	NYCDEP-Hunt's Point WPCP	Bronx	33
ACTIVE	Newtown Creek WPCP	Brooklyn	79
ACTIVE	NYCDEP 26th Ward	Brooklyn	4
ACTIVE	NYCDEP Rockaway WWTP	Queens	10
ACTIVE	Tallmans Island WPCP	Queens	22
ACTIVE	North River WPCF	New York	52
ACTIVE	Poughkeepsie WPCP	Poughkeepsie	6
ACTIVE	North Tonawanda WWTP	North Tonawanda	6
ACTIVE	Newburgh WPCP	Newburgh	13

New York CSO Facilities

Permittee Status	Facility/Permittee Name	Location	Permitted Outfalls
ACTIVE	Niagara Falls WWTP	Niagara Falls	9
ACTIVE	Yonkers Joint WWTP	Yonkers	12
ACTIVE	Albany South WWTP	Albany	0
ACTIVE	Albany North WWTP	Albany	0
ACTIVE	Lockport WWTP	Lockport	12
ACTIVE	Red Hook WPCP	Elmhurst	32
ACTIVE	Syracuse Metro WWTP	Syracuse	62
ACTIVE	Clayton Village WTF	Clayton	2
ACTIVE	Lewiston Master S.D.	Lewiston	1
ACTIVE	Dunkirk WWTP	Dunkirk	1
ELIMINATED	Saratoga County Sewer District 1	Saratoga	
ACTIVE	Frank E. VanLare STP	Rochester	6
ACTIVE	Bird Island WWTF	Buffalo	52
ACTIVE	Glens Falls WWTP	Glens Falls	1
ACTIVE	Oswego-West Side STP	Oswego	1
ACTIVE	City of Oswego, East Side STP	Oswego	6
ACTIVE	Waterford WWTP	Waterford	4
ELIMINATED	Owego STP	Owego	
ELIMINATED	Owasco S.D. #1 Overflows	Owasco	
ACTIVE	Kingston WWTF	Kingston	13
ACTIVE	Canastota WPCF	Canastota	1
ACTIVE	Ogdensburg WWTP	Ogdensburg	16
ACTIVE	Tupper Lake WPCP	Tupper Lake	2
ACTIVE	Watervliet CSO	Watervliet	5
ACTIVE	Cohoes CSO	Cohoes	16
ELIMINATED	Massena WWTP	Massena	9
ELIMINATED	Dock Street STP	Saugerties	
ACTIVE	Utica CSO	Utica	81
ACTIVE	Green Island CSO	Green Island	3
RECLASSIFIED	Village of Coxsackie STP	Coxsackie	3
ACTIVE	Chemung County-Elmira S.D. STP	Elmira	11
ACTIVE	Ticonderoga S.D. #5 WPCP	Ticonderoga	2
ACTIVE	Rensselaer County	Troy	0
ACTIVE	Troy CSO	Troy	49
ACTIVE	Washington County S.D. 2	Fort Edward	11
ELIMINATED	City of Mechanicville CSO	Mechanicville	

Note: There is one additional CSO permittee listed in New York State that is located on tribal land (Salamanca, Seneca Nation). A number of CSO permit holders in New York State have eliminated their CSO discharges or have been reclassified.

New Jersey CSO Facilities

Permittee Status	Facility/Permittee Name	Location	Permitted Outfalls
ACTIVE	Camden County MUA	Camden	1
ACTIVE	City of Camden	Camden	28
ACTIVE	Gloucester City	Gloucester	7
ACTIVE	Trenton Sewer Utilities Authority	Trenton	1
ACTIVE	Middlesex County Utility Authority	Sayreville	0
ACTIVE	Perth Amboy	Perth Amboy	16
ACTIVE	Joint Meeting of Essex & Union Counties	Elizabeth	0
ACTIVE	City of Elizabeth	Elizabeth	28
ACTIVE	North Bergen MUA –Woodcliff	North Bergen	1
ACTIVE	Guttenberg Town	Guttenberg	1
ACTIVE	North Hudson SA-West NY	West New York	2
ACTIVE	North Hudson SA-Adams	Hoboken	4
		Weehawken	3
		Union City	1
ACTIVE	Bergen County Utilities Authority	Little Ferry	0
ACTIVE	City of Hackensack	Hackensack	2
ACTIVE	Ridgefield Park Village	Ridgefield Park	6
ACTIVE	Fort Lee	Fort Lee	2
ACTIVE	Passaic Valley Sewerage Commission	Newark	0
ACTIVE	City of Bayonne CSOs	Bayonne	30
ACTIVE	Jersey City MUA	Jersey City	21
ACTIVE	Newark	Newark	17
ACTIVE	North Bergen MUA	North Bergen	9
ACTIVE	East Newark	East Newark	1
ACTIVE	Town of Harrison	Harrison	7
ACTIVE	Town of Kearny	Kearny	5
ACTIVE	City of Paterson	Paterson	24
RECLASSIFIED	Cliffside Park		
ELIMINATED	New Brunswick		0
New Brunswick	Edgewater MUA		0
ELIMINATED	Rahway Valley SA		0
ELIMINATED	Rahway City		0

Puerto Rico CSO Facilities

Permittee Status	Facility Name	City (Mail)	Current Outfalls
ACTIVE	Puerto Nuevo Sewer System	San Juan	4



US EPA Region 2
290 Broadway
New York, New York 10007-1866
(212) 637-3660
www.epa.gov/region2

